

REMARKS/ARGUMENTS

Favorable reconsideration of this application as presently amended and in light of the following discussion is respectfully requested.

Claims 29-52 are pending in the present application. Claims 1-28 have been canceled without prejudice and Claims 29-52 have been added by the present amendment.

In the outstanding Office Action, Claims 1-28 were rejected under 35 U.S.C. § 112, second paragraph; Claim 1 was rejected under 35 U.S.C. § 102(e) as anticipated by Reddy (U.S. Patent No. 6,175,355 B1, herein “Reddy”); Claims 1-7 were rejected under 35 U.S.C. § 102(e) as anticipated by Bitzakidis et al. (U.S. Patent No. 5,912,651, herein “Bitzakidis”); and Claims 15-24 were rejected under 35 U.S.C. § 103(a) as unpatentable over Bitzakidis in view of Reddy.

Regarding the rejection of Claims 1-28 under 35 U.S.C. § 112, second paragraph, Applicants have canceled Claims 1-28 and have presented new Claims 29-52 that comply with the requirements of 35 U.S.C. § 112, second paragraph. More specifically, new independent Claim 29 includes the features of original Claims 1 and 8, new Claims 30-32 include features of original Claims 9-11, new Claims 33-38 include features of original Claims 23-28, Claims 39-44 are new and depend from independent Claim 29, and new Claims 45-52 include features of original Claims 15-22.

Further, new independent Claims 29 and 45 recite the terms “a display period” and “a non-display period,” and these terms are defined in the specification at page 23, lines 1-7. According to the specification, the term “display period” corresponds to a period when a light source 12 shown in Figure 2 is “on” and the term “non-display period,” also described as “the black display period” in the specification, corresponds to a period when the light source 12 is “off.”

In addition, new independent Claim 45, which includes features of original Claim 15, has been written to address the rejected terms noted in the outstanding Office Action. No new matter has been added. Accordingly, it is respectfully requested this rejection be withdrawn.

Regarding the rejections of Claims 1-7 under 35 U.S.C. § 102(e) as anticipated by Reddy or Bitzakidis, those rejections are moot because new Claim 29 recites the features of original Claims 1 and 8 and original Claim 8 has not been rejected on the merits in the outstanding Office Action. Thus, Applicants believe that independent Claim 29 and each of the claims depending therefrom patentably distinguish over Reddy and Bitzakidis, either alone or in combination.

New independent Claim 45, which includes features of original Claim 15, is discussed next regarding Bitzakidis and Reddy.

Briefly recapitulating, new Claim 45 is directed to a method to display an image on a liquid crystal display, the method including changing a ratio of a display period and a non-display period of the image according to an image signal. The changing in the ratio of the display period and the non-display period includes a first step of supplying the image signal via a signal line to a pixel on an s-th horizontal line of the liquid crystal display for a first half of a horizontal scanning period and a second step of supplying a black signal to a pixel on a t-th horizontal line of the display for the rest of the horizontal scanning period. The first step and the second step are repeated alternately for 1 frame period while changing the values of s and t.

In a non-limiting example, Figures 9A-E show a repeated and alternated supply of the image signal and the black signal to pixels on various horizontal lines of the display, for the 1

frame period such that the image signal is supplied for the first half of the horizontal scanning period and the black signal is supplied for the rest of the horizontal scanning period.

Turning to the applied art, Bitzakidis shows in Figure 3 a succession of equal time periods F(A) to F(D) that include (i) display panel field periods f(A) to f(C) in which TV field information is written into picture elements, and (ii) periods D that represent dormant periods in which the picture elements of the panel are left unaddressed.¹ Further, Bitzakidis discloses at column 12, lines 41-67, that the “relative durations of the display panel address and dormant, non-addressed, periods . . . can also be varied to an extent.”

However, Bitzakidis does not teach or suggest a first step of supplying an image signal to a pixel on an s-th horizontal line of a display for a first half of a horizontal scanning period and a second step of supplying a black signal to a pixel on a t-th horizontal line of a display for the rest of the horizontal scanning period and repeating these two steps alternately for 1 frame period while changing the values of s and t, as required in Claim 45.

The outstanding Office Action relies on Reddy for teaching pixel driving by dividing a frame into 16 subframes with each pixel driven with a four bit binary signal. However, Reddy does not overcome the deficiencies of Bitzakidis discussed above.

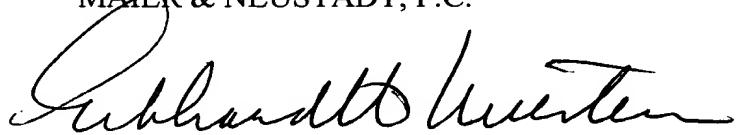
Accordingly, it is respectfully submitted that independent Claim 45 and each of the claims depending therefrom patentably distinguish over Bitzakidis and Reddy, either alone or in combination.

¹ Bitzakidis, column 9, lines 16-33.

Consequently, in light of the above discussion and in view of the present amendment, the present application is believed to be in condition for allowance and an early and favorable action to that effect is respectfully requested.

Respectfully submitted,

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